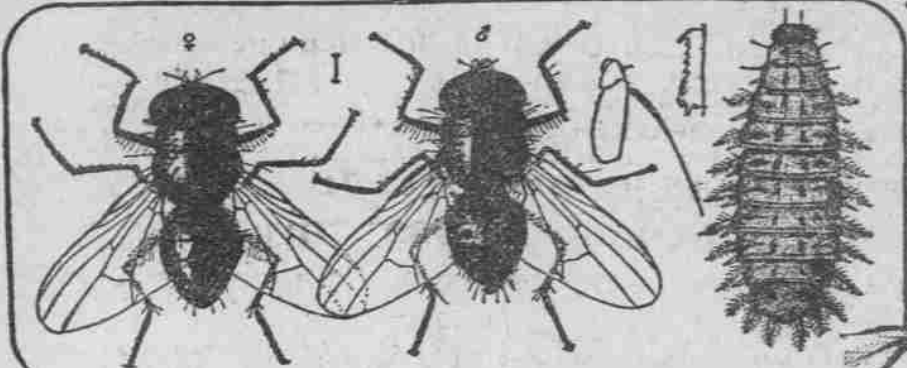
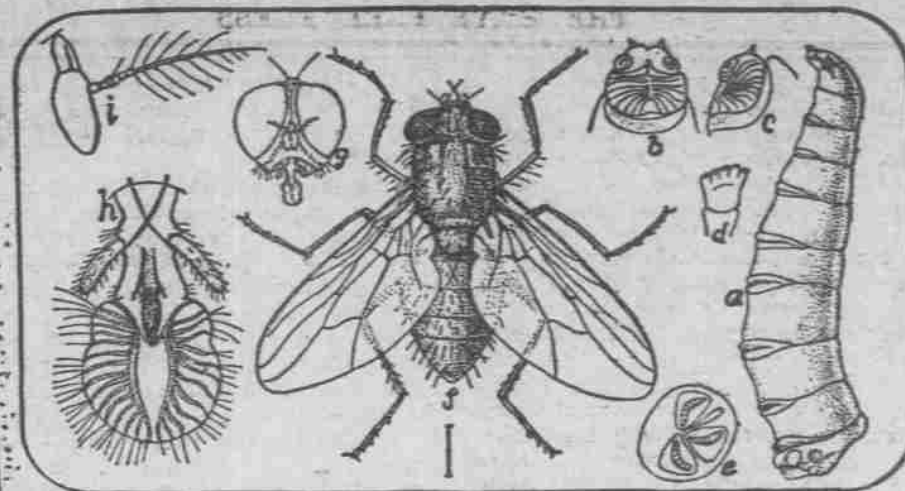


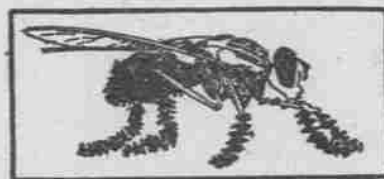
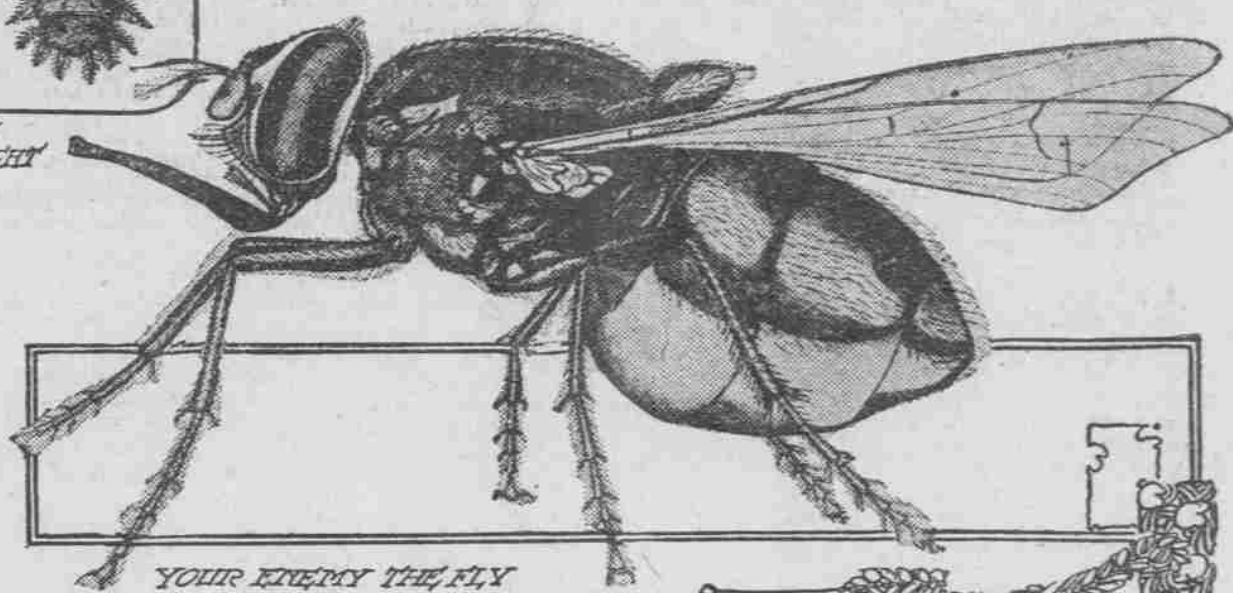
# WAR ON THE FILTHY FLY



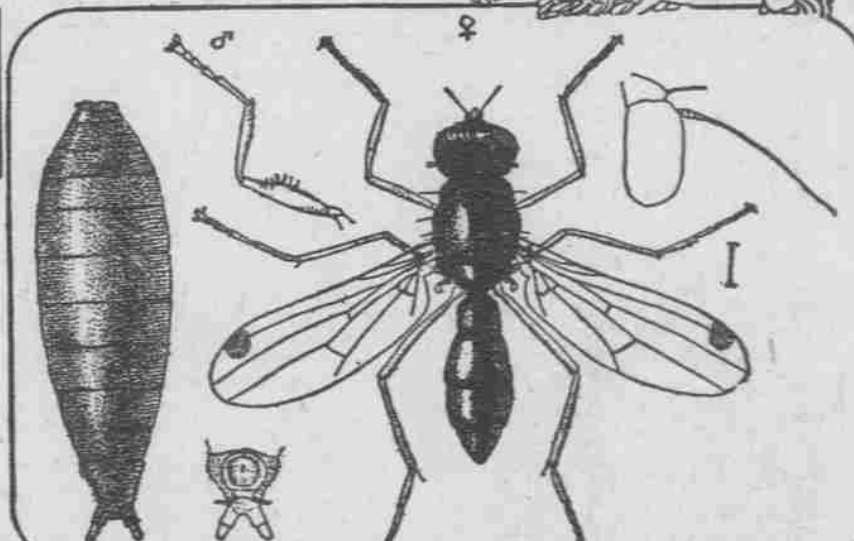
THE LITTLE HOUSE FLY: FEMALE AT LEFT; MALE NEXT; WITH ENLARGED ANTENNA, LARVA AT RIGHT. ALL ENLARGED.



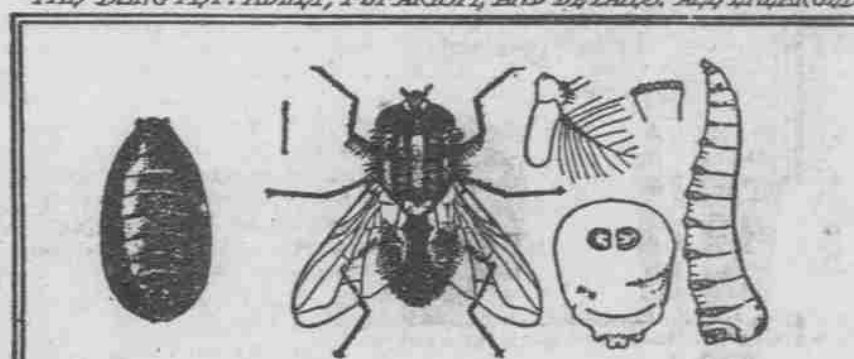
A STABLE FLY: ADULT, LARVA, AND DETAILS. ALL ENLARGED.



A FLY WITH GERMS (GERMS MAGNIFIED) ON ITS LEGS.



THE HOUSE FLY: ADULT, PUPA, AND DETAILS. ALL ENLARGED.



THE COMMON HOUSE FLY: PUPA, ADULT, AND ENLARGED PARTS AT RIGHT. ALL ENLARGED.

**F**AR FROM looking upon them as dipterous angels dancing attendance on Hygieia, regard them rather in the light of winged sponges spreading hither and thither to carry out the foul behests of contagion.—Sir John Lubbock.

Other names have been suggested for the house-fly to bring out some special characteristic or to indicate its nature as a carrier of disease. Accordingly, Dr. C. W. Stiles of the United States public health and hospital marine service suggested for it the name of "filth-fly" to indicate that it is hatched and reared in filth and that it abounds wherever filth abounds. Dr. L. O. Howard of the United States department of agriculture named it the "typhoid fly," from the fact that it is a ready carrier and disseminator of the germs which cause typhoid fever.

With the first advent of spring weather the house-fly appears. During the long winter months it has been hibernating. It was too cold for the fly to live and be active. Barring certain places where the temperature is high and food abundant, the fly is not seen during the winter months.

Soon after musca domestica has made its appearance it is in search of a place to breed. The female fly has got to lay her eggs. Nothing suits her better as a depository for her eggs than a pile of horse manure. She, therefore, makes her way to the stable, and that is the reason why stables are so densely infested with these insects. There they breed in countless numbers. In the absence of the favorite manure pile, any fermenting and putrid animal and vegetable matter will suit.

Whenever a fly is seen it is positive proof of the existence of some filth in the neighborhood. It is much more filthy and much more dangerous to have flies in the kitchen and dining room than to have bedbugs in the bedroom.

Every open garbage can, every bit of exposed food, every stagnant bit of water means another nursery and refuge for the pest. And each individual fly is the breeding place for as many germs as there are flies in the average fly nursery!

Flies can carry various disease germs to man. By so doing they kill thousands of people, especially babies, every year; therefore, kill the flies and save the babies.

If flies have access to human excrement they not only feed upon it, but they lay their eggs in it. After a few hours the egg hatches out a maggot; this feeds in the filth for several (about five) days and then forms a pupa; after about five days the adult fly comes out of the pupal case, feeds on the filth, and carries disease germs from the filth to the house, depositing these germs on the foods. Thus flies carry disease to people. A fly drops his excrement about once every four and a half minutes and may spread germs not only in this way, but also with his feet, wings, and mouth parts.

Even if excrement containing fly maggots is buried under as much as six feet of sand, the maggots can crawl to the surface, bringing disease germs with them.

Thus it is clear that if flies are kept away from human excrement, not only will they decrease in numbers, but they will be prevented from spreading certain diseases, such as typhoid fever.

The germs that the fly happens to alight upon with its feet or to suck up with its food it is ready to carry away and deposit elsewhere. Just as often as not a fly will alight upon the worst kind of unmentionable filth, filled with all sorts of germs, and thence will make for a jug of milk or any other article of diet prepared for human consumption that happens to come in its way.

The fly is a ready carrier of the germs of tuberculosis, since these are found especially in the dried sputum expectorated by persons afflicted with that disease.

It is a ready carrier and disseminator of the germs of typhoid fever also. It carries these germs from the privy or other filth and deposits them upon all kinds of food in the kitchen. It may even pollute the entire water supply of a community.

Tuberculosis and typhoid, however, though the most important, are not by any means the only diseases which the fly can carry. Asiatic cholera, bacillary dysentery, summer diarrhea of infants, anthrax, the tropical disease known as yaws, ophthalmia of pink eye of children, diphtheria and smallpox and certain parasitic worms—all these may be carried by the fly and the infection spread either through the medium of food or by direct contact with man.

Owing to the great prevalence and the large mortality in the United States caused by summer diarrhea of children, the fly as the carrier of the germs of this malady becomes at once a most important factor to consider in the efforts made to save child life, and no mother should be ignorant of this fact. The food given little children should be carefully guarded against coming in contact with the house-fly.

The remedies to be used against the fly may be divided into two classes: Those which the community may use through the agency of boards of health and those which the individual citizen should employ to protect his house against the entrance of those pests and to guard his foodstuffs against contamination by them.

There is one duty that once understood can hardly be neglected. Any material known to contain germs of disease should be disposed of immediately so that no flies may come in contact with it. In the large cities this has been largely effected through the installation of modern systems of sanitary drainage. In the smaller towns and villages, where no sewerage systems exist, this can be accomplished by the use of the sanitary privy. This, however, is only partly successful. The ideal method would be to rid a place of flies altogether by destroying their breeding places. The horse manure of stables can be so handled and treated as to kill all the eggs, the larvae and the pupae found in them. If these were totally destroyed no flies could possibly exist.

The individual citizen must protect his own house against the entrance of the fly. Screening is the best method known; but in spite of all screening some flies will make their way into the home. These must be killed. An easy way to accomplish it is to take some soft, flat object such as a rolled-up newspaper and kill them by the simple means of striking them. If there be too many of these insects to go after in that manner, there are many excellent fly-traps and fly poisons that can be made to do effective work. By all these methods combined flies may be got rid of.

One matter of moment and the only one which is in the hands of the housekeeper alone is the habit of keeping all foodstuffs carefully covered and away from the possibility of contact with flies.

The house-fly costs the United States \$350,000,000 a year. In other words, he deprives the American people annually of 170,000,000 years of

## BEST WAY TO RID A HOUSE OF FLIES.

The London Lancet, the leading medical journal of the world, says that the best and simplest fly killer is a weak solution of formaldehyde in water (two teaspoonfuls to the pint). Place in plates or saucers throughout the house. Ten cents' worth of formaldehyde will last an ordinary family all summer. It has no offensive smell, is fatal to disease organisms, and is practically non-poisonous except to insects.

Pyrethrum powder, which may be bought at any drug store, burned in the house, will also kill flies.

human life, or 4,000,000 lives of the present average length. For screens to obstruct his entrance into our homes we spend each year \$10,000,000. Yet his intrusion into millions of dwelling places remains unchecked. He is born and bred in the filth on which he feeds, and his pestilential progress from dunghill to dining room brings disease and death.

Flies kill more persons than wild beasts or poisonous snakes. Many of these animals and reptiles never get a chance to kill any human beings; but any one of the millions of flies found in most of our towns and cities, if he comes into a house carrying typhoid germs, has a chance of killing a whole family. Startling facts and unpleasant truths.

The earliest convincing evidence of the part played by house-flies in the dissemination of the typhoid bacillus was furnished by Drs. Vaughan, Veeder, Reed, Sternberg and Shakespeare, who investigated camp conditions during the Spanish-American war. Dr. Vaughan, a member of the United States army typhoid commission, summarized his reasons for believing that flies were active in the dissemination of typhoid fever in these paragraphs:

"(a) Flies swarmed over infected fecal matter in the pits, and then visited and fed upon the foods prepared for the soldiers in the mess tents. In some instances where lime had recently been sprinkled over the contents of the pits, flies, with their feet whitened with lime, were seen walking over the food.

"(b) Officers whose mess tents were protected by screens suffered proportionately less from typhoid fever than did those whose tents were not protected.

"(c) Typhoid fever gradually disappeared with the approach of cold weather and the consequent disabling of the fly."

In organizing a fly-swarming campaign the following steps are most important:

1. To educate the people as to the deadly nature of the fly.
2. To kill off all winter flies—those hiding about the houses, awaiting their season to emerge.
3. To do away with all breeding places for flies.
4. To trap all flies that happen to escape.

The extermination of the winter fly is a problem for the individual housekeeper. Don't let one fly escape. Hunt for them and kill them early, for the winter fly is the mother of all the summer's terrible swarm.

To do away with the fly breeding places is merely a matter of cleanliness. Clean houses, gardens and yards. Clean streets and alleysways. Discourage the fly in its breeding proclivities.

Carrying out the fourth step, the sale of fly-traps should be encouraged in all stores. These are marvelous little wire screen-houses, which are baited with milk, wherein a fly, once trapped, is doomed. They may be placed on porches, window sills, garbage pails—anywhere that flies are likely to congregate, but always outside the house. Then the fly has no chance to come inside and spread disease and dirt.

To sum it all up, swat the fly before he is born.

## MEAGER MENU.

Jones—How did you like the treatment at the northern sanitarium?  
Smith—Not at all: I had nothing but bacilli soup and vermicelli pie for two weeks."

## LIFE.

"I understand you furnished all the life at the donation party?" she said.  
"No, not me," he replied. "It was my brother who took the cheese."

## ITS ADVANTAGE.

"Beauty has one advantage over ability."  
"What is that?"  
"Even the most cautious will take beauty at its face value."

## HER THOUGHT.

"I can read your thoughts," he said with a smile.  
"And yet you don't say good night and go," she replied.

## Queer.

There may be some statesman who had rather be right than president, but there are others who seem to have no ambition in either direction.—Washington Herald.

## Extreme of Wisdom.

Utmost wisdom is not in self-denial, but in learning to find extreme pleasure in very little things.—Ruskin.

## But They Both Get It.

Some people jump at conclusions; others are more leisurely in making their mistakes.—The Pelican.

Constipation causes and seriously aggravates many diseases. It is thoroughly cured by Dr. Pierce's Pellets. Tiny sugar-coated granules. Adv.

Quarrelling before marriage may be an indication of love, but it does not indicate the same after the ceremony.

The average man wants to do all the sinning for his family.

Putnam Fadeless Dyes color more goods than others. Adv.

The science of living consists in not being a dead one.

## It's a Treat

to eat your meals when you know there is no danger of

**BLOATING  
HEARTBURN  
BELCHING  
HEADACHE  
NAUSEA OR  
INDIGESTION**

and this privilege is yours if you will only assist the digestive organs by the use of

**HOSTETTER'S  
STOMACH BITTERS**

It helps Nature correct all Stomach, Liver & Bowel ills

Pettit's Eye Salve MAKES SORE EYES WELL

**900 DROPS**

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Vegetable Preparation for Assimilating the Food and Regulating the Stomachs and Bowels of

**INFANTS—CHILDREN**

Promotes Digestion, Cheerfulness and Rest. Contains neither Opium, Morphine nor Mineral. **NOT NARCOTIC**

Recipe of Old Dr. SAMUEL PITCHER

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Sassafras—  
Rhubarb Sals—  
Aloe Seed—  
Sage—  
Mentha—  
Mint—  
Worm Seed—  
Clarified Glycerine—  
Whispering Flavor

A perfect Remedy for Constipation, Sour Stomach, Diarrhoea, Worms, Convulsions, Feverishness and LOSS OF SLEEP.

Fac Simile Signature of  
*Chas. H. Fletcher*

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NEW YORK.

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Exact Copy of Wrapper.

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The Kind You Have Always Bought

Bears the Signature of

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**CASTORIA**

THE CENTAUR COMPANY, NEW YORK CITY.

In Control.  
"That man insists on attending his own furnace."

"Yes. He used to live in an apartment and he took a tip from the janitor. It's the only sure way to be boss of the establishment."

## ECZEMA ON BACK AND CHEST

Pierson, N. Dakota.—"The eczema started on my scalp. It finally went on to the back of my neck, then on to my back, arms and chest. It broke out in pimples first and then seemed to run together in some places, making a sore about the size of a dime. At times the itching and burning were so intense that it seemed unbearable. The more I scratched the worse it became, and there would be a slight discharge from it, especially on my scalp, so as to make my hair matted and sticky close to the scalp. The hair was dry, lifeless and thin. My hair was falling so terribly that I had begun to despair of ever finding relief. My clothing irritated the eruption on my back. The affected parts were almost a solid scab.

"I had been bothered with eczema for about a year and a half. Then I began using the Cuticura Soap and Ointment. I used them daily for two months and I was cured." (Signed) Miss Mildred Dennis, Apr. 30, 1913.

Cuticura Soap and Ointment sold throughout the world. Sample of each free, with \$2-p. Skin Book. Address postcard "Cuticura, Dept. L, Boston."—Adv.

Increase your insurance to the limit before you begin fighting the devil with fire.

## Your Liver Is Clogged Up

That's Why You're Tired—Out of Sorts—Have No Appetite.

**CARTER'S LITTLE LIVER PILLS** will put you right in a few days. They do their duty. Cure Constipation, Biliousness, Indigestion and Sick Headache. SMALL PILL, SMALL DOSE, SMALL PRICE. Genuine must bear Signature

*Brent Wood*

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**Kodak Film Rolls Developed Free** Send us your kodak films; we charge only for printing. 35 films, 6 for 35¢; postage 10¢ each; best work; quick service. DAY & NIGHT STUDIO, Seattle, Wa.

**PATENTS** Watson E. Coleman, Washington, D.C. Patent free. High-class references. Best results. W. N. U., KANSAS CITY, MO. 12-1914.

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Make Women Look Old

and they show the effect of unnatural sufferings—of headaches, backaches, dizziness, hot flashes, pains in lower limbs, pains in groins, bearing-down sensations.

These symptoms indicate that Nature needs help. Overwork, wrong dressing, lack of exercise, and other causes have been too much for nature—and outside aid must be called upon to restore health and strength.

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The Vegetable Remedy for Women's Ills that relieves nervous exhaustion and irritability and removes other distressing symptoms due to disturbed conditions of the delicate feminine organism.

For over forty years it has been used with more than satisfaction by the young, middle-aged and the elderly—by wives, mothers and daughters. You will find it of great benefit. Sold by Medicine Dealers in liquid or tablet form, or send Dr. E. V. Pierce, Buffalo, N. Y., 60 one-cent stamps for trial box by mail.

**DR. PIERCE'S PLEASANT PELLETS** Relieve constipation, regulate the bowels, and remove all impurities. Easy to take and candy.